CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-51

NPDES PERMIT NO. CA0037982

WASTE DISCHARGE REQUIREMENTS FOR:

ESTERO MUNICIPAL IMPROVEMENT DISTRICT
FOSTER CITY LAGOON, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

1. Estero Municipal Improvement District (hereinafter discharger) by application dated December 12, 1978, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. The discharger is currently discharging an annual average of 20.3 million gallons per day (mgd) of waste containing pollutants into San Francisco Bay, a water of the United States, at a point approximately 1300 feet east of the intersection of Foster City Boulevard and Third (3rd) Avenue in Foster City, California. The waste consists of water taken in from Belmont Slough during high tide and circulated through the Foster City Lagoon, a water of the United States. The lagoon is normally flushed by natural tidal cycles, which requires the manipulation of slide gates, flap gates, and weirs. In addition, pumps are available to augment water exchange and to prevent flooding from storm runoff. The lagoon is subject to occasional dense biological growths and the pumping of its contents into San Francisco Bay constitutes a "discharge of pollutants" as defined in Section 502 of the Federal Water Pollution Control Act Amendments of 1972.

3. The Board adopted a Water Quality Control Plan for San Francisco Bay Basin in April 1975. The Basin Plan contains water quality objectives for the Foster City Lagoon and central San Francisco Bay.

4. The beneficial uses of the Foster City Lagoon are:

   a. Recreation
   b. Fish habitat
   c. Habitat and resting for waterfowl and migratory birds
   d. Esthetic enjoyment

5. The beneficial uses of central San Francisco Bay are:

   a. Recreation
   b. Fish migration and habitat
   c. Habitat and resting for waterfowl and migratory birds
   d. Industrial water supply
   e. Esthetic enjoyment
   f. Navigation

6. The discharge is presently governed by Waste Discharge Requirements, Order No. 74-54 which allow discharge into San Francisco Bay.

7. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

8. The Board has notified the discharger and interested agencies and persons of its intent to revise waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, Estero Municipal Improvement District in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. The discharge of any municipal or industrial waste, other than urban stormwater runoff or an application of algicide or herbicide that has not been approved by this Board's Executive Officer, to the Foster City Lagoon is prohibited.

B. Effluent Limitations

1. The discharge of lagoon water to San Francisco Bay in excess of the following limits is prohibited:

Constituents	Units	Instantaneous Maximum
BOD_5	mg/l	20
Oil and Grease	mg/l	15

2. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.

3. Instantaneous maximum limitations shall be applied to the values of the measurements obtained for any single grab sample.

C. Lagoon Water Limitations

1. The discharger shall provide sufficient circulation through the lagoon to maintain the following limits of quality:

a. Chlorophyll 'a' - less than 50 -ug/l increase above influent concentration;

b. Dissolved oxygen - 5.0 mg/l, minimum.

2. The discharger shall provide sufficient circulation through the lagoon to prevent the following conditions at any point in the lagoon:

   a. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   b. Floating, suspended or deposited macroscopic particulate matter or foam;

   c. Aquatic growths in quantities sufficient to create a nuisance condition as defined in the California Water Code.

   d. Significant increases in apparent color beyond natural background levels in Belmont Slough;

   e. Increased turbidity above present natural background levels in Belmont Slough by more than the following:

Belmont Slough Background	Incremental Increase
$\leq$ 50 units (NTU)	5 units, maximum
50-100 units	10 units, maximum
$>$ 100 units	10% of background, maximum

   f. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on fish, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the lagoon or as a result of biological concentration.

3. Compounds applied to the lagoon by the discharger for the control of plant growths shall not cause the copper concentration in the lagoon to exceed 0.12 mg/l.

D. Receiving Water Limitations

1. The discharge of lagoon water to San Francisco Bay shall not cause:

   a. Visible, floating, suspended or deposited oil or other products of petroleum origin at any place;

   b. Floating, suspended, or deposited macroscopic particulate matter at any place;

   c. Increased turbidity above background levels at any place by more than the following:

Receiving Water Background	Incremental Increase
<50 units (NTU)	5 units, maximum
50-100 units	10 units, maximum
>100 units	10% of background, maximum

2. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 74-54, adopted by the Board on July 16, 1974. Order No. 74-54 is hereby rescinded.

2. The discharger shall comply with all effluent, lagoon, and receiving water limitations, prohibitions, and provisions of this Order immediately upon adoption.

3. The discharger shall comply with the attached Self-Monitoring and Reporting Program as ordered by the Executive Officer.

4. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements," dated April 1977, except A.5, A.12, B.3, and B.5.

5. At least 30 days prior to any intended application of herbicide to the lagoon, the discharger shall submit to the Executive Officer a report describing:

   a. The nature of the material to be applied;

   b. The times, locations, and dosages for the application;

   c. Steps to be taken for preventing adverse effects upon the fish, wildlife, waterfowl and other aquatic organisms in the lagoon.

   Application of any herbicide to the lagoon without written authorization from the Executive Officer is prohibited.

6. At least 30 days prior to any intended application of algicide to the lagoon system, the discharger shall submit a report describing the nature of the material to be applied, and obtain written authorization by the Executive Officer to use such material. At least 24 hours prior to any intended application of such material, the discharger shall notify this office. Such notification shall be followed by a written report within five working days, describing:

   a. Times, locations, and dosages for the application,

   b. Steps taken to prevent adverse effects upon the fish, wildlife, waterfowl and other aquatic organisms in the lagoon.

7. The District shall for the period 1979 thru 1982 submit a yearly report on implementation of its Capital Improvement Program. This report is due by September 1 each year.

8. This Order expires May 15, 1984. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

9. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 15, 1979.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions & Reporting Requirements, April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

ESTERO MUNICIPAL IMPROVEMENT DISTRICT

FOSTER CITY, SAN MATEO COUNTY

NPDES NO. CA 0037982

ORDER NO. 79-51

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INTAKE

Station	Description
I-1	At a point in Belmont Slough, immediately adjacent to the slide gates of the lagoon water intake structure.

B. EFFLUENT

Station	Description
E-001	At a point in the lagoon, immediately adjacent to the "forebay" sump of the pump station.

C. LAGOON WATER

Station	Description
LG-1	At a point in the lagoon, adjacent to the Beach Park Blvd. bridge, at the midpoint of the lagoon's width.
LG-2	At a point in the main lake of the lagoon, adjacent to the pier which parallels East Hillsdale Blvd., equidistant from Shell Blvd. and Edgewater Blvd.
LG-3	At a point in the lagoon, adjacent to the East Hillsdale Blvd. bridge, at the midpoint of the lagoon's width.

D. RECEIVING WATERS

Station	Description
C-1	At a point in San Francisco Bay, located approximately 100 feet from the end of the box culvert or outfall, along a line parallel to the outfall pipes.
C-2	At a point in San Francisco Bay, located approximately 100 feet northeast of C-1.
C-3	At a point in San Francisco Bay, located approximately 1500 feet from the end of the box culvert or outfall, along a line parallel to the outfall pipes.

E. SEDIMENTS

Station	Description
B-1	At a point in the lagoon, approximately 1000 feet southeast of the intersection of Edgewater Blvd.
B-2	At a point in the lagoon, approximately 1000 feet east of the intersection of East Hillsdale Blvd. and Edgewater Blvd.
B-3	At a point in the lagoon, midway between Dolphin Isle and Sailfish Isle, approximately 300 feet offshore from Marlin Park.
B-4	At a point in the lagoon, midway between Surfbird Isle and Shearwater Isle, approximately 300 feet offshore from Gull Park.
B-5	At a point in the lagoon, approximately 350 feet north of the west end of Flying Cloud Isle.

F. DISSOLVED OXYGEN MONITORING

Station	Description
DO-1 thru DO-"n"	Discharger shall establish DO Stations for each five acres of area treated with an algicide. Each station shall be in an area representative of the five or less acres treated. Discharger shall submit in the monthly self-monitoring report a map showing the area(s) treated and the location of the DO Station(s) used.

II. SCHEDULE OF SAMPLING, MEASUREMENTS AND ANALYSES

The schedule of sampling, measurement, and analyses shall be as given in Table I.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 79-51.

2. Does not include the following paragraphs of Part A:

C.1., C.3., C.4., C.5.c., C.5.d., C.5.e., D.1., D.2.a., D.3.a., D.4., E., F.2., F.3.g.

3. Is effective on the date shown below.

4. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment: Table I

Effective Date June 6, 1979

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

Estero Municipal Improvement District

ORDER NO.

SAMPLING STATIONS	I-1 (1)		E-001		LG	C	B	DO	
TYPE OF SAMPLES		G		G	G	G	BS	G	
Flow Rate (2) (mgd and pump-hours)				D					
BOD_5 (mg/l)				2W					
Oil and Grease (mg/l)				2W					
pH (units)		2W		2W	2W				
Chlorophyll 'a' (µg/l)		2W			2W				
Copper (mg/l)								E (3)	
Dissolved Oxygen (mg/l)					(8) 2W			E (4)	
Temperature (^{O}C)					(8) 2W			E (4)	
Apparent Color (color units)		2W			2W				
Turbidity (Nephelometric Turbidity Units)		2W			2W	(7) 2W			
All Applicable Standard Observations				2W	(5) 2W	(7) 2W			
Bottom Sediment Analyses and Observations (6)							2/Y		

FOOTNOTES:

(1) Samples of intake water shall be collected on days coincident with sampling of lagoon water.

(2) A tabulation shall be maintained showing, for each day, the total volume of lagoon water discharged, as well as the number of pump-hours recorded. This tabulation shall be included in the report described in Paragraph F.3. of Part A.

(3) To be sampled one hour after each application of copper-based algicide, at each of the indicated sampling stations.

(continued on next page)

FOOTNOTES (continued):

(4) To be sampled within 24 hours prior to application of the algicide and again on the seventh day following the algicide application. Time of sampling to be at or around eight o'clock in the morning. The samples are to be taken within one foot of the lagoon bottom, at each of the indicated sampling stations.

(5) Lagoon water and intake water standard observations shall be the same as those described for receiving waters in Part A, Paragraph C.5.a.

(6) Bottom sediment composite samples shall consist of four or more grab samples collected from different locations in the immediate vicinity of each sampling station location and those shall be thoroughly mixed on an equal volume or weight basis. The analyses and observations shall include:

a. Copper, mg/kg dry weight.

Sampling shall take place during the months of April and October each year.

(7) To be sampled while discharge from the lagoon is occurring.

(8) Time of sampling is to be one hour before sunrise.

TYPES OF SAMPLES

G = grab sample
BS = bottom sediment sample

FREQUENCY OF SAMPLING

D = once each day
2/W = two days per week
2W = every two weeks
3M = every three months
E = each time algicide is being applied

LEGEND FOR TABLE

TYPE OF STATIONS

I = intake stations
E = waste effluent stations
LG = lagoon stations
C = receiving water stations
B = bottom sediment stations
DO = dissolved oxygen stations